

ABSTRACT OF DISCLOSURE

An input system based on a three-dimensional inertial navigation system and a trajectory estimation method thereof is disclosed. The input system based on the three-dimensional inertial navigation system according to the present invention has acceleration sensors for outputting acceleration information just before motions, acceleration information on the motions, and acceleration information just after the motions; a rotation angle information estimation-computing portion for estimating rotation angle information on the motions through a predetermined computing process based on the outputted acceleration information just before the motions and acceleration information just after the motions; a conversion-computing unit for calculating position information on the motions based on the estimated rotation angle information on the motions and the outputted acceleration information on the motions; and an optimal plane-computing unit for projecting the position information on the motions onto an optimal plane.